UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,278	01/04/2000	RAYMOND TAH-SHENG HSU	PA000090	8966

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Qualcomm Incorporated
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EXAMINER
PHAN, TRI H

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/477,278	HSU ET AL.
	Examiner	Art Unit	
	Tri H. Phan	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>14 February 2005</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-21</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-21</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 1-04)   Office Action Summary   Part of Paper No./Mail Date 20050617

DETAILED ACTION

Response to Amendment/Arguments

1.   This Office Action is in response to the Response/Amendment filed on February 14th,

2005. Claims 1-21 are now pending in the application.

Double Patenting

2.   The nonstatutory double patenting rejection is based on a judicially created doctrine

grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

improper timewise extension of the "right to exclude" granted by a patent and to prevent possible

harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.

Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA

1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to

overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this

application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal

disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37

CFR 3.73(b).

3.   Claims 1-21 of the current Application No. 09/477,278 (hereinafter '278') are

provisionally rejected under the judicially created doctrine of obviousness-type double patenting

as being unpatentable over claims 5-7, 9-13, 15-19, 21-25 of copending Application No.

09/494,199 (hereinafter '199'). Although the conflicting claims are not identical, they are not

patentably distinct from each other because the claimed inventions of the copending Application

'199' also disclose about the system and method for informing the packet data services network

of dormant network connections associated with the mobile station, when the mobile station

moves, e.g. roams, from the first infrastructure element to the second infrastructure element of

the packet data services network.

        For claim 1 of the claimed invention, the claim 5 of copending application '199' also

discloses about the method for optimizing channel resources, when moving from the first

infrastructure element to the second infrastructure element of the packet data services network,

the mobile station transmits a message including a number of dormant network connections

associated with the mobile station and "*enhanced information*" associated with the dormant

network connections; wherein, it is obvious that the "*enhanced information*" associated with the

dormant network connections can be the "*list of identifiers*" associated with the dormant network

connections.

        For claim 6 of the claimed invention, the claim 9 of copending application '199' also

discloses about the mobile station configuring to inform the packet data services network of

dormant network connections associated with the mobile station when the mobile station moves

from the first infrastructure element of the packet data services network to the second

infrastructure element of the packet data services network, the mobile station comprises the

antenna, the processor coupled to the antenna and the processor-readable medium accessible by

the processor and containing a set of instructions executable by the processor to modulate and

transmit from the mobile station a message including a number of dormant network connections

associated with the mobile station and a *"reduced list of identifiers"* associated with the dormant

network connections when the mobile station moves from the first infrastructure element of the

packet data services network to the second infrastructure element; wherein, it is obvious that the

"reduced list of identifiers" associated with the dormant network connections can be the *"list of*

identifiers" associated with the dormant network connections.

For claim 11 of the claimed invention, the claim 15 of copending application '199' also

discloses about the mobile station configuring to inform a packet data services network of

dormant network connections associated with the mobile station when the mobile station moves

from the first infrastructure element of the packet data services network to the second

infrastructure element of the packet data services network, the mobile station comprising a

device configured to transmit from the mobile station a message including a number of dormant

network connections associated with the mobile station and a *"reduced list of identifiers"*

associated with the dormant network connections when the mobile station moves from the first

infrastructure element of the packet data services network to the second infrastructure element;

wherein, it is obvious that the *"reduced list of identifiers"* associated with the dormant network

connections can be the *"list of identifiers"* associated with the dormant network connections.

For claims 16 and 21 of the claimed invention, the claim 21 of copending application '199' also discloses about the mobile station configuring to inform the packet data services network of dormant network connections associated with the mobile station when the mobile station moves from the first infrastructure element of the packet data services network to the second infrastructure element of the packet data services network, the mobile station comprises means for transmitting from the mobile station a message including a number of dormant network connections associated with the mobile station and a *"reduced list of identifiers"* associated with the dormant network connections when the mobile station moves from the first infrastructure element of the packet data services network to the second infrastructure element; wherein, it is obvious that the *"reduced list of identifiers"* associated with the dormant network connections can be the *"list of identifiers"* associated with the dormant network connections and wherein the *"means for establishing"* IP instances is obvious in establishing the PPP connection instances between the mobile station and the base station as claimed in the claimed invention 21.

For claims 2, 7, 12 and 17 of the claimed invention, the claims 10, 16 and 22 of copending application '199' also discloses about the dormant network connections comprise "point-to-point protocol connections".

For claims 3, 8, 13 and 18 of the claimed invention, the claims 8, 17, 23 and 29 of

copending application '199' also discloses about the first and second infrastructure elements

comprise "packet data service nodes".

For claims 4, 9, 14 and 19 of the claimed invention, the claims 12, 18 and 24 of

copending application '199' discloses about the identifiers "are not comprised of" service

reference identifiers; wherein, it is obvious that the identifier which "comprises or are not

comprised" of service reference identifiers is depend on the system engineering choices.

For claims 5, 10, 15 and 20 of the claimed invention, the claims 13, 19 and 25 of

copending application '199' also discloses about the message comprises an original message

including an indicator that the dormant network connections are dormant.

This is a provisional obviousness-type double patenting rejection because the conflicting

claims have not in fact been patented.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Manning et al.** (U.S.6,580,699).

          - In regard to claims 1, 11, 16 and 21, **Manning** does discloses in Figs. 1-2, 5 and in the

respective portions of the specification about the system, method and means for establishing an

Radio-Packet data serving node 'R-P' (*"Packet Data Services Network"*, 'PDSN') connection

where the mobile station 'MS' roams from the control of the old base station controller 'BS-O' to

the new base station controller 'BS-N' (*"moving from first infrastructure element to the second*

infrastructure element"; For example see Figs. 1-2; col. 1, lines 12-24; col. 3, lines 50-56) for

establishing the point-to-point (*'PPP'*) connection with the PDSN (For example see Col. 3, Lines

50-56); the MS stores necessary information such as PPP indicator, session ID, cell ID, etc. (*"list*

of identifiers"; For example see col. 5, lines 12-23; col. 4, lines 18-26) and the related R-P

connection, e.g. PPP session status (*"active or dormant state"*; wherein *"active state"* is the state

where the mobile station is receiving or transmitting data and wherein *"dormant state"* is just the

state where the mobile station has nothing, e.g. data, to transmit or receive), and uses the

registration message to send information about the PPP session status to the BS-N (*"transmitting*

the message from the mobile station to the second infrastructure element of the packet data

services network"; For example see Fig. 5; col. 2, lines 19-35; col. 5, lines 12-40; wherein the

new BSC receives information about the R-P connection from the mobile station) in order to

construct the R-P connection when roaming into a new radio network. **Manning** fails to

explicitly disclose about the *"number of network connections"* in the information transmitting to

the new BS; however, **Manning** does disclose that the MS can have one or more session ID

instances ("*IP instances*") simultaneously (For example see col. 4, lines 18-28) therefore, it is

obvious that the MS can send all the necessary information with the appropriated session Ids to

the new BS, where the "*number of network connections*", which is just the number counting

from the session ID instances, are just the optional choices in the necessary transmitting

information to the new BS. It is also obvious that the 'dormant' MS has "*dormant connections*"

which provide by the PPP session status sent to the BS-N when roaming or idle (For example see

Fig. 6; col.5, line 54 through col. 6, line 22).

- Regarding claims 2, 7, 12 and 17, **Manning** further discloses about the 'dormant' MS

has PPP connections (For example see col. 6, lines 9-13).

- In regard to claims 3, 8, 13 and 18, **Manning** further discloses about the Packet data

session nodes ("*first and second infrastructure elements are packet data service nodes*"; For

example see Figs. 1-2; col. 3, Lines 32-41).

- Regarding claims 4, 9, 14 and 19, **Manning** further discloses about the R-P indicator,

PDSN ID, Pre_cell ID, session ID ("*the service reference identifiers*"; For example see Figs. 1-2;

col. 4, lines 18-26).

- In regard to claim 6, **Manning** discloses in Figs. 1-2, 5 and in the respective portions of

the specification about the system, method and means for establishing an Radio-Packet data

serving node 'R-P' ("*Packet Data Services Network*", 'PDSN') connection where the mobile

station 'MS' roams from the control of the old base station controller 'BS-O' to the new base

station controller 'BS-N' ("*moving from first infrastructure element to the second infrastructure*

element"; For example see Figs. 1-2; col. 1, lines 12-24; col. 3, lines 50-56) for establishing the

point-to-point ('*PPP*') connection with the PDSN (For example see Col. 3, Lines 50-56); the MS

stores necessary information such as PPP indicator, session ID, cell ID, etc. ("*list of identifiers*")

and the related R-P connection, e.g. PPP session status ("*active or dormant state*"; wherein

"*active state*" is the state where the mobile station is receiving or transmitting data and wherein

"*dormant state*" is just the state where the mobile station has nothing, e.g. data, to transmit or

receive), and uses the registration message to send information about the PPP session status to

the BS-N ("*transmitting the message from the mobile station to the second infrastructure*

element of the packet data services network"; For example see Fig. 5; col. 2, lines 19-35; col. 5,

lines 12-40; wherein the new BSC receives information about the R-P connection from the

mobile station) in order to construct the R-P connection when roaming into a new radio network.

It is inherent that the MS has antenna ("*antenna*") for transmitting and receiving call. It is also

obvious that the MS has the "*processor*" and memory ("*processor-readable medium*") in order to

store necessary information sent to the BS-N or program ("*set of instructions*") in order to

perform the modulation for the receiving/transmitting RF signal ("*modulating signal*") or

performing methods as disclosed above. **Manning** fails to explicitly disclose about the "*number*

of network connections" in the information transmitting to the new BS; however, **Manning** does

disclose that the MS can have one or more session ID instances simultaneously (For example see

col. 4, lines 18-28); therefore, it is obvious that the MS can send all the necessary information

with the appropriated session Ids to the new BS, where the "*number of network connections*",

which is just the number counting from the session ID instances, are just the optional choices in

the necessary transmitting information to the new BS. It is also obvious that the 'dormant' MS

has "*dormant connections*" which provide by the PPP session status sent to the BS-N when

roaming or idle (For example see Fig. 6; col.5, line 54 through col. 6, line 22).

Response to Arguments

6.   Applicant's arguments filed on February 14th, 2005 have been fully considered but they

are not persuasive.

Applicant argues that **Manning** fails to disclose the limitation "*transmitting from the*

mobile station to the second infrastructure element of the packet data services network a

message including a number of dormant network connections associated with the mobile station

and a list of identifiers associated with the dormant network connections.". Examiner   .

respectfully disagrees.

Manning does discloses in Figs. 1-2, 5 and in the respective portions of the specification

about the system, method and means for establishing an Radio-Packet data serving node 'R-P'

("*Packet Data Services Network*", 'PDSN') connection where the mobile station 'MS' roams from

the control of the old base station controller 'BS-O' to the new base station controller 'BS-N'

("*moving from first infrastructure element to the second infrastructure element*"; For example

see Figs. 1-2; col. 1, lines 12-24; col. 3, lines 50-56) for establishing the point-to-point ('*PPP*')

connection with the PDSN (For example see Col. 3, Lines 50-56); the MS stores necessary

information such as PPP indicator, session ID, cell ID, etc. ("*list of identifiers*"; For example see

col. 5, lines 12-23; col. 4, lines 18-26) and the related R-P connection, e.g. PPP session status

("*active or dormant state*"; wherein "*active state*" is the state where the mobile station is

receiving or transmitting data and wherein "*dormant state*" is just the state where the mobile

station has nothing, e.g. data, to transmit or receive or not active) and uses the registration

message to send information about the PPP session status to the BS-N ("*transmitting the*

message from the mobile station to the second infrastructure element of the packet data services

network"; For example see Fig. 5; col. 2, lines 19-35; col. 5, lines 12-40; wherein the new BSC

receives information about the R-P connection from the mobile station) in order to construct the

R-P connection when roaming into a new radio network. **Manning** fails to explicitly disclose

about the "*number of network connections*" in the information transmitting to the new BS;

however, **Manning** does disclose that the MS can have one or more session ID instances ("*IP*

instances") simultaneously (For example see col. 4, lines 18-28); therefore, it is obvious that the

MS can send all the necessary information with the appropriated session Ids to the new BS,

where the "*number of network connections*", which is just the number counting from the session

ID instances, are just the optional choices in the necessary transmitting information to the new

BS. It is also obvious that the 'dormant' MS has "*dormant connections*" or "*dormant state*", e.g.

the state where the mobile station does not receive or transmit data, but still maintain the PPP

connection and the R-P connection (For example see Fig. 6; col.5, line 54 through col. 6, line 22;

wherein "*active state*" is the state where the mobile station is receiving or transmitting data and

wherein "*dormant state*" is just the state where the mobile station has nothing, e.g. data, to

transmit or receive); by providing the PPP session status or necessary stored information to the

BS-N, when roaming or idle, for updating or establishing new R-P connection when needed (For

example see col.2, lines 19-35) in order to maintain network reliability and efficiency as

disclosed in col. 4, lines 44-50. Therefore, Examiner concludes that **Manning** teaches the

arguable features.

In response to Applicant's argument that the references fail to show certain feature of

Applicant's invention, it is noted that the feature upon which Applicant relies (i.e., a "*dormant*

state", which found in the Applicants' specification at page 9, lines 4-14; and wherein the

"*dormant state*" and "*dormant connections*" are clearly different from each other, e.g. "*state*"

and "*connections*") is not recited in the rejected claim(s). Although the claims are interpreted in

light of the specification, limitations from the specification are not read into the claims. See *In re*

Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.1993).

Claims 2-4,7-9,12-15 and 17-20 are rejected as in Part 5 above of this Office action and

by virtue of their dependence from claims 1, 6, 11, 16.

Reasons For Allowance

7.   Claims 5, 10, 15 and 20 are objected to as being dependent upon a rejected base claim

(claims 1, 6, 11 and 16), but would be allowable if rewritten in independent form including all of

the limitations of the base claim and any intervening claims.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Lim, Byung Keun (U.S.6,404,754 and U.S.6,766,168) and **Dynarski et al.**

(U.S.6,628,671) are all cited to show devices and methods for improving the packet data service

in the mobile radio telecommunication architectures, which are considered pertinent to the

claimed invention.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The

examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chau T. Nguyen can be reached on (571) 272-3126.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571) 273-8300

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street,

Alexandria, VA 22314.

Information regarding the status of an application may be obtained from the Patent

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system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BRIAN NGUYEN
PRIMARY EXAMINER

Tri H. Phan
June 22, 2005